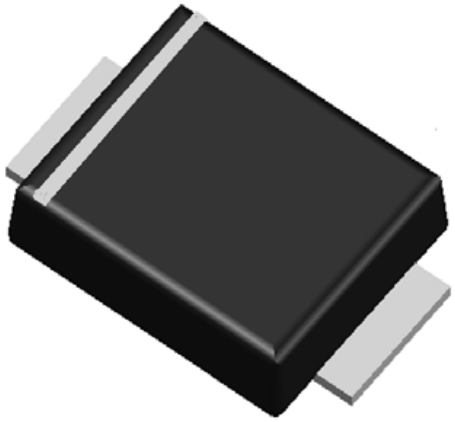
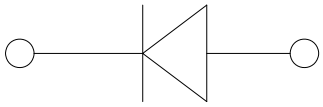
SSL54BF THRU SSL510BF

RoHS COMPLIANT

Surface Mount Schottky Rectifier





Features

- Guardring for overvoltage protection
- Low forward voltage drop,Low power losses
- High forward surge capability
- High frequency operation
- Solder dip 260 °C max. 10 s, per JESD 22-B106

Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Mechanical Data

- **Package**: SMBF
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes the cathode end

■Maximum Ratings (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SSL54BF	SSL56BF	SSL510BF
Device marking code			SSL54BF	SSL56BF	SSL510BF
Repetitive Peak Reverse Voltage	V_{RRM}	V	40	60	100
Average Rectified Output Current @60Hz sine wave, Resistance load, Ta (FIG.1)	I_O	A	5.0		
Forward Surge Current (Non-repetitive) @ 60Hz Half-sine wave,1 cycle, Ta=25℃	I_{FSM}	A	100		
Storage Temperature	Tstg	℃	-55 ~+150		
Junction Temperature	Tj	℃	-55 ~+125	-55 ~+150	

■Electrical Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SSL54BF	SSL56BF	SSL510BF
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=5.0A	0.45	0.5	0.7
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	mA	Ta=25℃	0.5		0.1
			Ta=100℃	10		5

Note1:Pulse test:300uS pulse widh,1% duty cycle

Note2:Pulse test:pulse widh 40mS

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	SSL54BF	SSL56BF	SSL510BF
Typical Thermal Resistance(1)	RθJ-A	℃/W	58		
	RθJ-L		20		
	RθJ-C		15		

Note:
(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad area

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SSL54BF-SSL510BF	F1	Approximate 0.096	5000	/	80000	13” reel

■ Characteristics(Typical)

FIG.1: Io-TL Curve

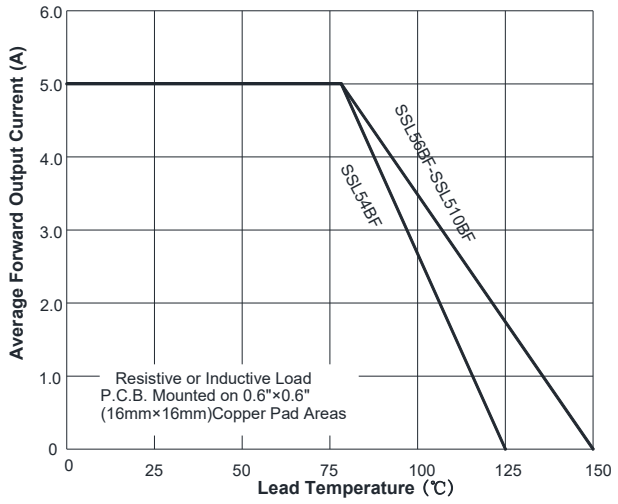


FIG.2: Forward Surge Currrent Capability

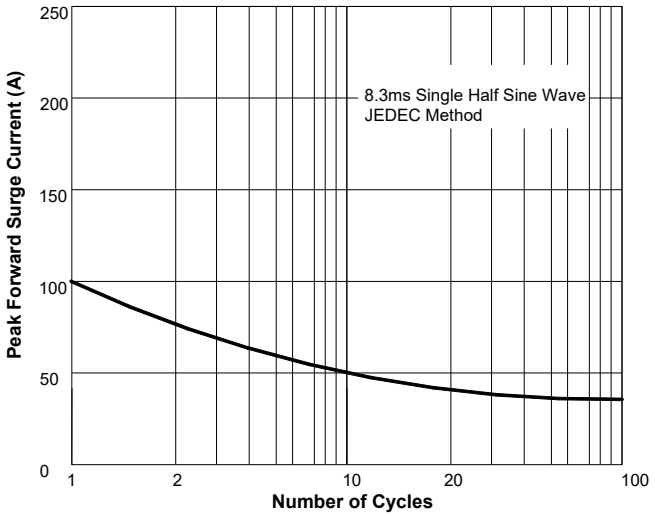


FIG.3: Forward Voltage

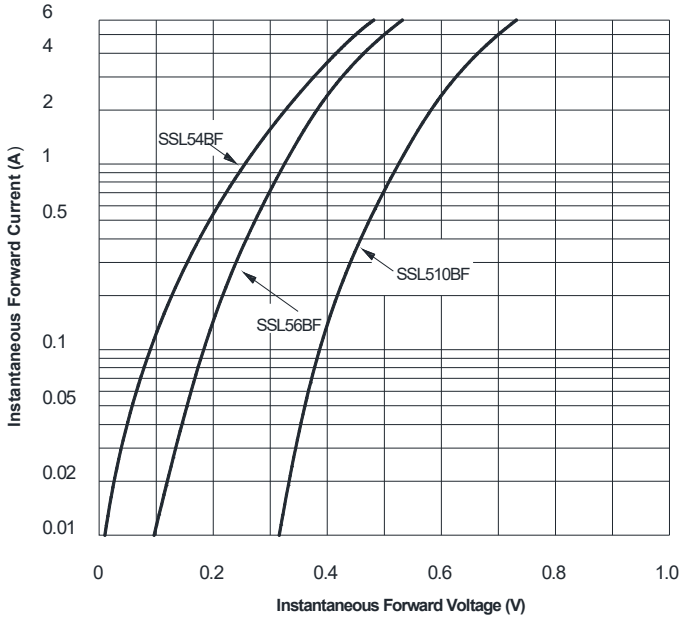
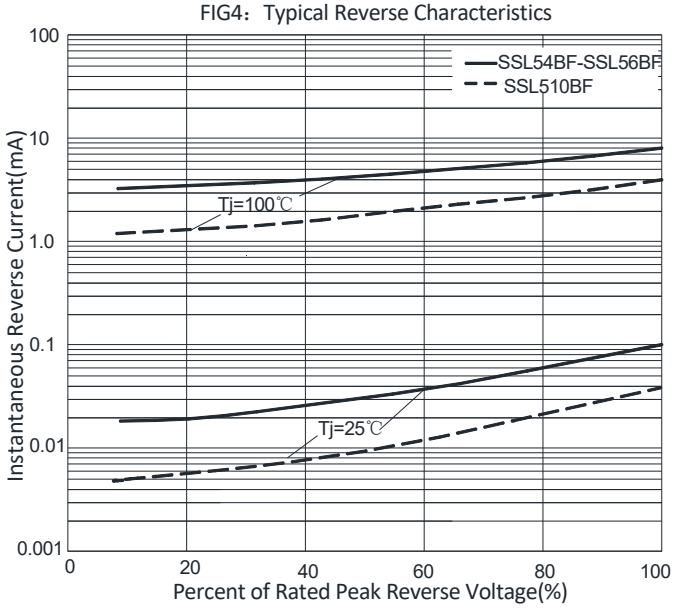
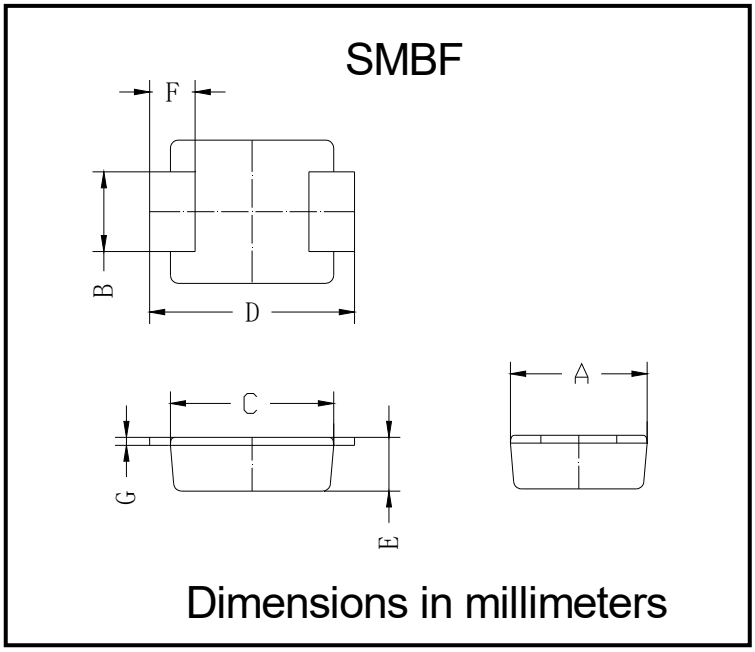


FIG4：Typical Reverse Characteristics

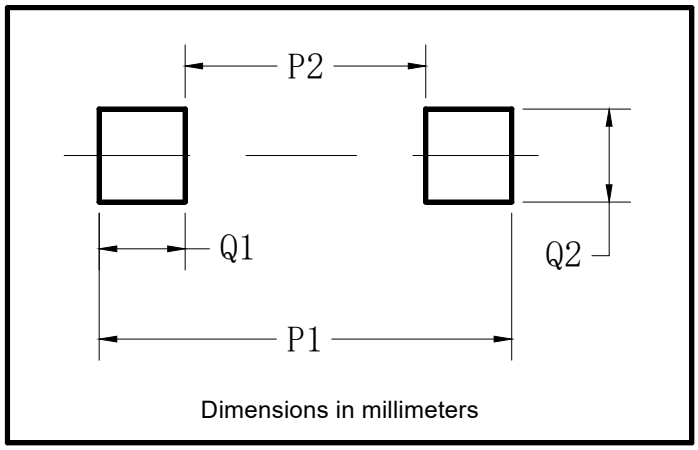


■ Outline Dimensions



SMBF		
Dim	Min	Max
A	3.40	3.80
B	1.90	2.10
C	4.15	4.45
D	5.10	5.60
E	1.05	1.55
F	0.70	1.35
G	0.15	0.25

■ Suggested pad layout



Dim	Milimeters
P1	6.20
P2	2.40
Q1	1.90
Q2	2.20

Notice

All products, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise. Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in STARSEA's terms and conditions of sale for such products, STARSEA assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of STARSEA products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.